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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,669	08/07/2003	Lewis K. Cirne	P1954C-944	8894

21839 7590 08/14/2008

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EXAMINER	
LIN, WEN TAI	

ART UNIT	PAPER NUMBER
2154	

NOTIFICATION DATE	DELIVERY MODE
08/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/635,669	CIRNE ET AL.	
	Examiner	Art Unit	
	Wen-Tai Lin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-66 are presented for examination.

2. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

Claim Rejections - 35 USC § 102

3. Claims 1, 6-8, 12-13, 18-20, 24-25, 28-29, 32, 36, 39, 41-45, 49-50 and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Carney et al.[U.S. Pat. No. 5774729].

4. Carney was cited in the previous office action.

5. As to claims 1 and 12, Carney teaches the invention as claimed including: a method for routing an event to a human interface object [e.g., an interactive debugger, a mouse/keyboard event handler] in a computer system [Tables 1-2], said method comprising:

assigning a routing type to an event [e.g., Abstract; i.e., broadcast or targeted routing types];

receiving an event [e.g., 33, Fig.3];

determining the routing type of the received event [e.g., 34-35, Fig.3] and;

routing the event to a human interface object based on the determined routing type for the event [e.g., col.5 lines 54-63; col.1, line 59 – col.2 line 15; note that an interactive debugger is a human interface object. Furthermore, each human interface object in a computer system (such as a displayed keyboard, physical keyboard and mouse each has a related input/output routine) must be associated with at least a programming language and therefore is an inherent member of one of the event handler (col.1, lines 38-49)].

6. As to claim 6, Carney further teaches that one or more clients can register interest in an event such that when the event is received, the event is sent to each client which registered interest [e.g., col.1 lines 38-54; col. 10, lines 1-4].

7. As to claim 7, Carney further teaches that a client can unregister interest in an event [e.g., 12, Fig.1; col.4, lines 1-19; i.e., when a routine is removed from its PPA it is unregistered from its associated event].

8. As to claim 8, Carney further teaches that an indication as to interest is maintained for each event and is updated when a client registers and unregisters interest in the event [col.4, lines 1-19; col.4, lines 41-60; col.6, lines 1-20; i.e., each member is assigned a member number or code as an indication of interest in the event and such membership is inherently updated through PPA after compilation].

9. As to claims 13, 18-20, 24-25, 28-29, 32, 36, 39, 41-45, 49-50 and 54, since the features of these claims can also be found in claims 1, 6-8 and 12, they are rejected for the same reasons set forth in the rejection of claims 1, 6-8 and 12 above.

Claim Rejections - 35 USC § 103

10. Claims 2-5, 9-11, 14-17, 21-23, 26-27, 30-31, 33-35, 37-38, 40, 46-48, 51-53 and 55-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carney et al.(hereafter "Carney")[U.S. Pat. No. 5774729], as applied to claims 1, 6-8, 12-13, 18-20, 24-25, 28-29, 32, 36, 39, 41-45, 49-50 and 54 above.

11. As to claim 2, Carney teaches that said routing type is a member of a set including a first routing type that is routed via broadcast mode and a second routing type that is routed based on a targeted mode [Abstract; col.4 lines 41-60].

Carney does not specifically teach that the target routing type is further divided into geometric and focus types.

However, events based on geometric coordinates (such as a mouse event) and focus type (such as a keyboard event) are well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that Carney's system must have dealt with the mouse event and keyboard event differently because these two types of event are associated with different event code and parameters, with which Carney's event handling unit [e.g., 11, Fig.1] can obviously distinguish

the differences (based on the associated event code and parameters) between the these events and route them to different event handlers.

In other words, it is obvious that an ordinary artisan may further categorize events that fall into Carney's targeted mode, such as keyboard and mouse events, into different sub-categories depending on their event codes and associated parameters because this is a programmer's design choice.

12. As to claim 3, Carney further teaches that the set further includes another routing type that is broadcast to a plurality of interface objects [e.g., Abstract; col.4 lines 41-60].

13. As to claims 4-5, Carney does not specifically teach that the routing type is one of an extensible plurality of routing types, wherein routing types can be added or deleted to said plurality.

However, for the same reasons stated in the rejection of claim 2 above, it is obvious to further subdivide Carney's targeted events into various sub-categories and make it extensible because of the complexity in various execution environments [e.g., col. 1, lines 27-36].

14. As to claims 9-11, Carney does not specifically teach that the indication is a count which is incremented when a client registers interest in the event and is decremented when a client un-registers interest in the event, wherein said indication as to interest is maintained by adding an event to a handler table, and wherein when the indication no longer indicates interest in an event, the event is removed from said handler table.

However, since Carney's system maintains a list of members associated with each event, it would be obvious to add a parameter to count the number of members as an indication of interest in the respective event because it saves additional effort from counting the members in each list [e.g., col.6, lines 1-41; Table 1].

15. As to claims 14-17, 21-23, 26-27, 30-31, 33-35, 37-38, 40, 46-48, 51-53 and 55-59-66, since the features of these claims can also be found in claims 1-6, 8-11, 13, 18, 20, 25, 29, 36, 45, 50 and 54, they are rejected for the same reasons set forth in the rejection of claims 1-6, 8-11, 13, 18, 20, 25, 29, 36, 45, 50 and 54 above.

As to the additional limitations requiring the human interface object to comprise a displayed GUI or one of a window, panel, editable text, push button, list box and radio button in claims 60-66: it is obvious that Carney's method is applicable to the events associated with these types of objects, because these objects are popular in a computer environment (e.g., a browser) and their respective event handlers may be developed in certain programming languages such that a routing attribute can be associated with each of the event in accordance with Carney's teachings.

16. Applicant's arguments filed 5/12/2008 for claims 1-5 etc. have been fully considered, but they are not deemed to be persuasive.

In the remarks Applicant continues to argue that:

(1) Carney's event handler is a program that is automatically called whenever a particular event occurs and Applicant's human interface object is not a piece of program code, as alleged

by the examiner. Moreover, Carney says nothing with regards to windows, or the like. As such, it cannot be considered to disclose or suggest "human interface objects", as recited in claim 1.

(2) With regard to the rejection of claims 2 and 4, the office action does not set forth sufficient findings to support conclusion of obviousness; it is a hindsight reconstruction of Applicant's teaching in the specification.

17. The examiner respectfully disagrees.

As to point (1): There is no exclusive definition, in the specification or in the claim language, for the term "human interface object". Applicant argues that the specification page 2 has an explanation of the term "human interface elements" as being "including, but are not limited to, windows, panels, editable text, push buttons, list boxes, radio buttons, etc." Even if Applicant does intend to equate the human interface object to the human interface element, there is still no reason why the windows, panels, editable text, push buttons, list boxes, radio buttons etc. each can not be (or is not) represented by a piece of code. It is noted that events associated with these human interface elements or objects, which by themselves are merely graphic symbols (or domains) on a display, would go nowhere if none of these human interface elements is associated with a piece of event handling code. For example, Applicant's Fig. 11 clearly indicates that each type of event (1102, 1120, 1130) is directed (by an event dispatching unit such as 126, Fig.2) to a window (1108, 1124, 1134) to be handled by a window handler (1110, 1126, 1136). By arguing that Carney's event handler is not an human interface object, Applicant appears to say that one can not merge Applicant's windows (1108, 1124 or 1134) and their

respective window event handlers (1110, 1126, 1136) and call them event handlers (one for each pairs)!

Further, although Carney is silent about window environment, Carney's computer system certainly includes human interface elements such as keyboard and mouse. By default each of these human interface elements are associated with an event handler, as also taught in Applicant's specification. They can all be called "objects" in an object-oriented programming sense, to which Applicant appears to be fairly familiar (see pages 9-10 of Applicant's specification). In particular, a debug event handler as taught by Carney at col.2, lines 3-15 and col.5 lines 54-63 is an interactive one (col.5, line 54-56) and is often associated with a GUI displaying various debugging tabs selected by mouse click. It is baseless to claim that a debug event handler has no human interaction functionalities.

For at least the above reasons, it is submitted that Carney anticipates claims 1, 13, 25, 29, 36, 41, 43, 45 and 50, as indicated in the previous office action.

As to point (2): There is a level of naming game one needs to avoid before attempting to reveal the truth. The so called "routing type" in Applicant's claim language has nothing to do with "routing" in a nominal sense. It is nothing but a parameter for dispatching various events to their respective associated event handling routines within a program (see Applicant's Fig. 2 and Carney's corresponding concept in Fig. 1), and most of the time this occurs within a program construct. For example, in the specification Applicant illustrates an example at the beginning of page 3 to show how inefficient it is to "route" various events by applying a series of IF-ELSE construct. Applicant is probably aware that this sort of inefficiency is normally overcome by

making use of another programming construct called "SWITCH-CASE" that dispatches events directly to their associated handling routines by examining some of the associated parameters such as event codes or event types (see also the Abstract of Carney reference). Given a set of event codes and their associated parameters, it is a programmer's design choice to layout a corresponding SWITCH-CASE constructs within a program. For example, it is well known that a mouse moving within a window is always associated with a pair of X-Y coordinates, with which a large volume of web pages were designed to locate respective objects laid out in a window. It is also well known that a key stroke event has associated with at least four states (naming: key press, key release, key on and key off). In a system where mouse and keyboard events coexist, an ordinary skilled programmer certainly knows how to use a top layer of SWITCH-CASE construct to distinguish a mouse from a keyboard (or from any other event types) before getting down to another layer of SWITCH-CASE construct to sort out different parameters associated with the same event type. If there is any inventive idea in this area, Applicant needs to explicitly spell out in the claim language. It is submitted that, as far as claims 1-5 are concerned, the term "routing types" is equivalent to the already existing event types and the additional labeling of "geometric" or "focus" events on a mouse and keyboard types of events does not add any value to an ordinary skilled programmer who would use the existing event ID and its associated parametric values to design a SWITCH-CASE construct for handling the associated events.

With respect to claims 4-5: the flexibility in adding or deleting a routing type in the "plurality of routing types" is equivalent to adding or deleting a corresponding "CASE" under the SWITCH(event type) statement in a program. To say that claims 4-5 are patentable over the

prior art is equivalent of saying that an ordinary skilled programmer does not know how to add or delete a corresponding type of event handler in a program (either manually or automatically). Although Applicant states in the specification that the flexibility comes from the fact that no recompilation is needed after the addition or deletion is made, it is noted that such a feature/statement is not found in the claims.

For at least the foregoing reasons, it is submitted that the prior art of record reads on the claims.

18. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300 for official communications; and

(571) 273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

August 8, 2008

/Wen-Tai Lin/

Primary Examiner, Art Unit 2154